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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,450	12/16/2001	Michael Cheiky	968-20-022	1641

7590 06/24/2004  
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EXAMINER

LUK, LAWRENCE W

ART UNIT PAPER NUMBER

2838

DATE MAILED: 06/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/022,450

Applicant(s)

CHEIKY ET AL.

Examiner

Lawrence W Luk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4-7,10-15 and 19-42 is/are pending in the application.
- 4a) Of the above claim(s) 22-25 and 35-42 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4 and 26-34 is/are allowed.
- 6) ☒ Claim(s) 1,5-7,12-15 and 19-21 is/are rejected.
- 7) ☒ Claim(s) 10 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/15/2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/16/2001</u> . | 6) <input type="checkbox"/> Other: _____  |

***Election/Restrictions***

1. Claims 22-25 and 35-42 stand withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention as noted in paper number 11.

**DETAILED ACTION**

***Information Disclosure Statement***

2. The information disclosure statement filed 12/16/2001 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

***Drawings***

3. This application, filed under former 37 CFR 1.60, lacks formal drawings. The informal drawings filed in this application are acceptable for examination purposes. When the application is allowed, applicant will be required to submit new formal drawings. In unusual circumstances, the formal drawings from the abandoned parent application may be transferred by the grant of a petition under 37 CFR 1.182.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 5-7, 12-15 and 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Knapp (5,408,173).

As to claim 1, Knapp disclose in figure 1, column 2, line 56 to column 3, line18, a battery charging system, comprising: current source (+VCC); a battery (unit 16); a voltage and current regulator (unit 12), which regulates voltage applied to said battery and current supplied to said battery wherein said voltage and current regulator (unit 12) shapes said current supplied to said battery wherein said voltage and current regulator tapers said current supplied to said battery.

As to claims 5, 6, 13, 14 and 15, Knapp disclose in figure 1, column 2, lines 56-67, said voltage and current regulator comprises: an adjustable shunt regulator (unit 12), and a transistor operating in conjunction with said adjustable shunt regulator (unit 12).

As to claim 7, Knapp disclose in figure 1, column 2, line 56 to column 3, line18, a battery charging system comprising: current source (+VCC); a battery (unit 16); voltage regulator (unit 12) means, which regulates voltage applied to said battery; and current regulator (unit 12) means, which regulates current supplied to said battery; wherein said

current regulator means shapes said current supplied to said battery; and wherein said current regulator means tapers said current supplied to said battery.

As to claim 12, Knapp disclose in figure 1, column 2, lines 56-67, voltage regulator means comprises an adjustable shunt regulator (unit 12).

As to claim 19, Knapp disclose in figure 1, column 2, lines 56-67, a battery charging system, comprising: a current source; a battery; an adjustable band-gap voltage reference diode, a voltage divider (unit 14), and a resistor; and a transistor operating in conjunction with said adjustable band-gap voltage reference diode (unit CR2) and said resistor (unit R1), which regulates voltage applied to said battery and current supplied to said battery (unit 16).

As to claim 20, Knapp disclose in figure 1, column 2, lines 56-67, said transistor operating in conjunction with said adjustable band-gap voltage reference diode and said resistor shapes said current supplied to said battery.

As to claim 21, Knapp disclose in figure 1, column 2, lines 56-67, said transistor operating in conjunction with said adjustable band-gap voltage reference diode (unit CR2) and said resistor (unit R1) tapers said current supplied to said battery (unit 16).

### ***Allowable Subject Matter***

6. Claims 4 and 26-34 are allowed.

Claim 4 is allowable. The reason for allowance is that the prior art of record fails to disclose or reasonably suggest said voltage divider potentiometer connected across said current source and said battery, said voltage divider potentiometer having an

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output connected to said reference input of said adjustable band-gap voltage reference diode, and providing a reference input voltage at said reference input to said band-gap voltage reference diode. It is these features found in the claim, as they are claimed in the combination, which has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

Claim 26 is allowable. The reason for allowance is that the prior art of record fails to disclose or reasonably suggest a voltage divider potentiometer connected across said current source and said battery, said voltage divider potentiometer having an output connected to said reference input of said adjustable band-gap voltage reference diode, and providing a reference input voltage at said reference input to said band-gap voltage reference diode. It is these features found in the claim, as they are claimed in the combination, which has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

Claims 27-34 are allowed due to their dependency on claim 26.

7. Claims 10 and 11 are objected to as being dependent upon a rejected base claim.

The prior art of record fails to teach or reasonably suggest that:

As to claim 10, said voltage divider potentiometer connected across said current source and said battery, said voltage divider potentiometer having an output connected to said reference input of said adjustable band-gap voltage reference diode.

Claim 11 is dependent on claim 10.

Claims 10 and 11 would be allowable if rewritten in independent form including all the limitation of the base claim.

### Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence W Luk whose telephone number is (571)272-2080. The examiner can normally be reached on 7 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on (571)272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LWL  
June 17, 2004

*Lawrence W Luk*  
*examiner*  
*6/17/04*